



Connect Michigan

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Work to be Done

Connect Michigan was called upon to assist the Communications subgroup of the Governor's 21st Century Infrastructure Committee. Connect Michigan helped to identify goals, examine the gaps, and recommend ways in which the state can work to be a more digitally inclusive state and more fully participate in a digital economy. The report sets goals for both broadband infrastructure (supply) and adoption (demand).

Broadband Infrastructure Goals	Current	Gap
All residents and businesses have access to fixed broadband with a speed of 25/3 Mbps by 2020	88.1%	11.9%
All residents and businesses have access to fixed broadband with a download speed of 100 Mbps by 2024	82.5%	17.5%
All areas of the state have access to a mobile broadband connection with a download speed of at least 10 Mbps by 2020	89.2%	10.8%
All areas of the state have access to a mobile broadband connection with a download speed of at least 25 Mbps by 2024	0%	100%
All community anchor institutions have access to a fixed broadband connection with speeds that meet the minimum recommended speeds for their sector by 2024	Current state and gap not defined	

Broadband Adoption Goals	Current	Gap
95% of residents have adopted a fixed broadband connection by 2024	78.9%	16.1%
95% of residents have adopted a mobile broadband connection by 2024	58%	37%
95% of businesses have a web presence by 2020	68%	27%
All community anchor institutions have adopted a fixed broadband connection by 2024	Current state and gap not defined	

These are aggressive goals that will require bold action to achieve.



Community Planning and Technical Assistance



- Projects being implemented in communities include:
 - Website and social media classes for businesses
 - Digital literacy campaigns
 - Residential and business surveys to better identify access issues and areas of demand
 - Zoning ordinance language review and updates, and other regulatory modifications to lower barriers to expansion
 - Awareness and support campaigns for educational one-to-one device programs
 - Support for local placemaking initiatives
 - Public-private partnerships for infrastructure expansion
- Use of residential surveys to more precisely identify local demand to support provider business cases (and continually refine Connect Michigan maps)
- Community broadband plans almost always include support for small businesses (website & social media development, technology for entrepreneurs, new business incubators and facilities, etc.)



Broadband Adoption in Michigan

Average Monthly Cost of Service	Michigan	Iowa	Minnesota	Ohio	Wisconsin	U.S.
Service at least 10 Mbps/1 Mbps	\$61.48	\$62.92	\$47.35	\$56.65	\$70.44	\$60.36
Service at least 25 Mbps/3 Mbps	\$91.76	\$76.96	\$62.95	\$82.42	\$86.84	\$80.56
Service at least 100 Mbps/3 Mbps	\$104.95*	\$104.97*	\$104.95	\$99.99	\$84.95	\$114.45
Average Across All Service Levels	\$80.56	\$67.27	\$79.27	\$56.52	\$67.79	\$67.81

*Data only available from a single participating carrier

Percent of Non-Adopting Households by Income	Michigan	Iowa	Minnesota	Ohio	Wisconsin	U.S.
Less than \$10,000	56.07%	51.02%	51.65%	53.84%	49.97%	53.01%
\$10,000 to \$19,999	52.75%	52.69%	49.29%	51.66%	51.07%	52.05%
\$20,000 to \$34,999	38.73%	38.09%	35.34%	37.69%	38.34%	37.66%
\$35,000 to \$49,999	27.12%	28.19%	24.76%	25.03%	25.40%	25.72%
\$50,000 to \$74,999	17.60%	16.47%	15.42%	15.81%	15.71%	16.89%
\$75,000 or more	7.57%	8.45%	6.87%	6.96%	7.23%	7.43%

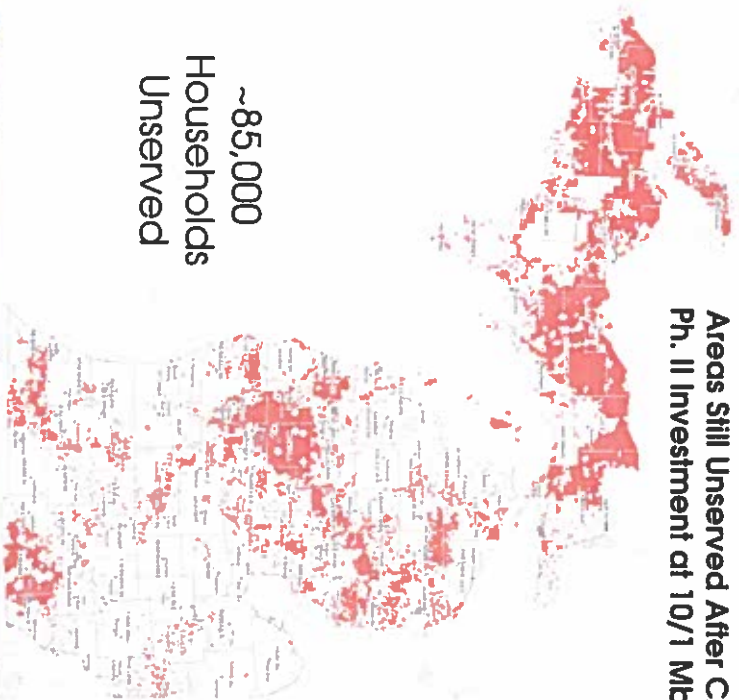
Cost of broadband service can be examined using the 2016 FCC Urban Rate Survey Data. The table at left provides the average cost of broadband service in each state at the indicated download and upload speeds. This data represents only a sampling of providers and the cost of service in each state, but provides an opportunity to begin the comparative examination of cost at a state level.

Lack of home internet service disproportionately impacts households with lower annual incomes. The table at left provides the rate of non-adoption among households by annual income. Data is derived from the U.S. Census American Community Survey 2015 Estimates. Michigan's lower income households (those earning less than \$35,000 annually) have lower rates of internet adoption than neighboring states and the U.S. as a whole.



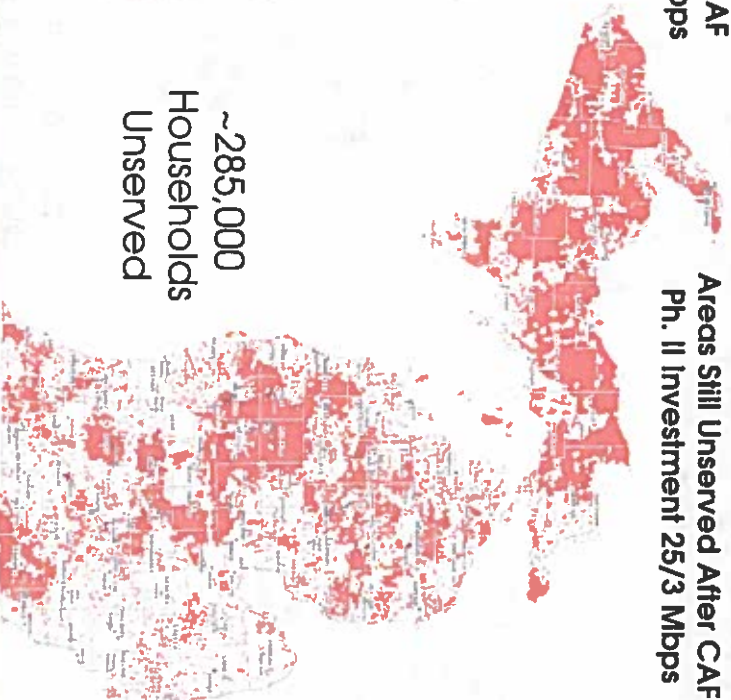
Infrastructure Access in Michigan

**Areas Still Unserved After CAF
Ph. II Investment at 10/1 Mbps**



~85,000
Households
Unserved

**Areas Still Unserved After CAF
Ph. II Investment 25/3 Mbps**



~285,000
Households
Unserved

While the Connect America Fund program is slated to bring significant broadband investment to rural Michigan, there will still be many areas of the state without access to adequate broadband service.

Following the implementation of CAF, approximately 85,000 households will still be without 10/1 Mbps connections and 285,000 without 25/3 Mbps connections, (CAF recipients are only required to deliver 10/1 Mbps connectivity).

Includes data from 154 broadband carriers. Mobile and satellite service is not included. Data as of Oct. 1, 2016.

Full-size state maps available at:

<http://www.connectmi.org/mapping/state>

The Connect Michigan initiative has helped not only our local communities get connected, it has helped our local entrepreneurs and businesses succeed right from their own homes or businesses located outside the city limits. - West Central MichiganWorks!

Infrastructure Access in Michigan

Michigan has seen broadband infrastructure growth since mapping efforts began in 2010, however, the last two years have seen little growth in coverage at the 25/3 Mbps tier.

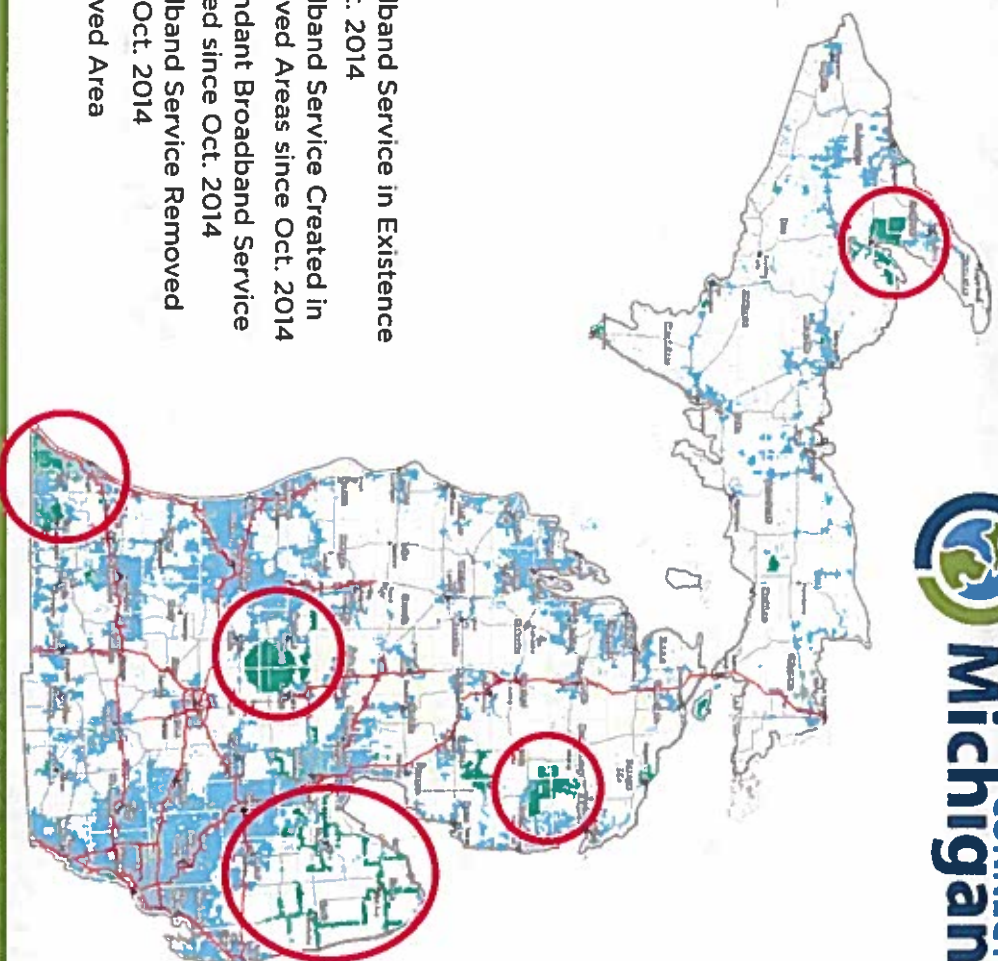
This map shows areas of the state that have experienced infrastructure expansion since October 2014 at the 25/3 speed tier. Areas in bold green are those where broadband service has been created in unserved areas since 2014.

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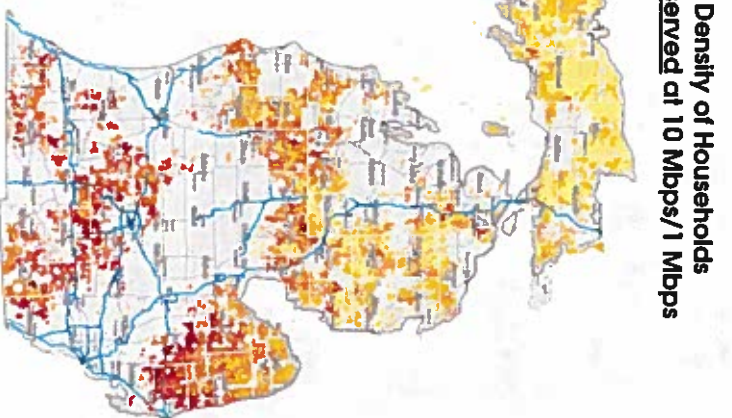
- ☒ Broadband Service in Existence in Oct. 2014
- ☒ Broadband Service Created in Unserved Areas since Oct. 2014
- ☒ Redundant Broadband Service Created since Oct. 2014
- ☒ Broadband Service Removed since Oct. 2014
- ☐ Unserved Area



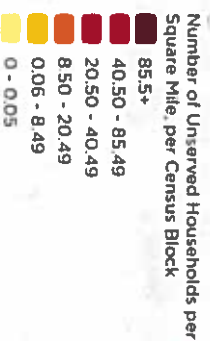
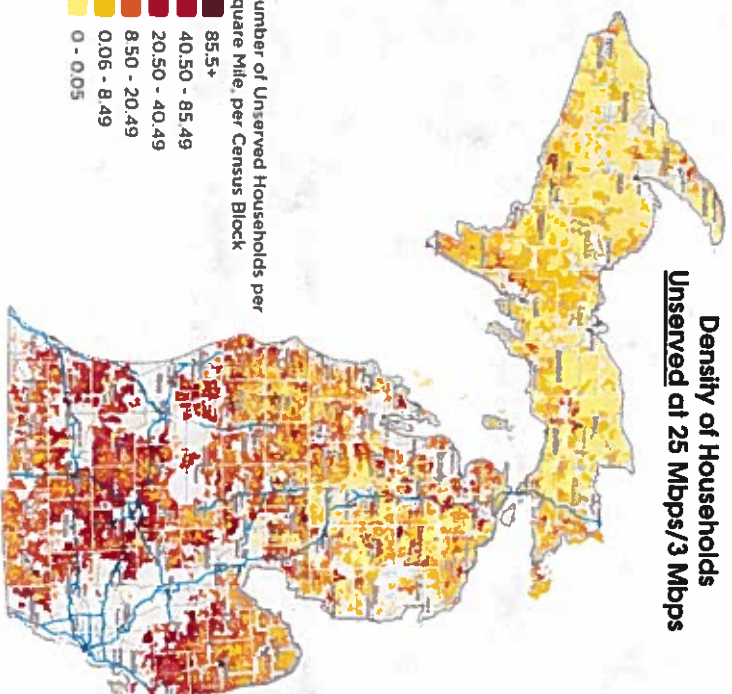


Infrastructure Access in Michigan

Density of Households
Unserved at 10 Mbps/1 Mbps



Density of Households
Unserved at 25 Mbps/3 Mbps



While household availability data may indicate relatively wide accessibility, large gaps in geographic availability persist.

These maps show the household density of areas of Michigan that are unserved by broadband at the indicated speeds. The darker the color, the more households there are without access to the stated speeds.

Includes data from 154 broadband carriers. Mobile and satellite service is not included. Data as of Oct. 1, 2016.

Full-size state maps available at:
<http://www.connectmi.org/mapping/state>

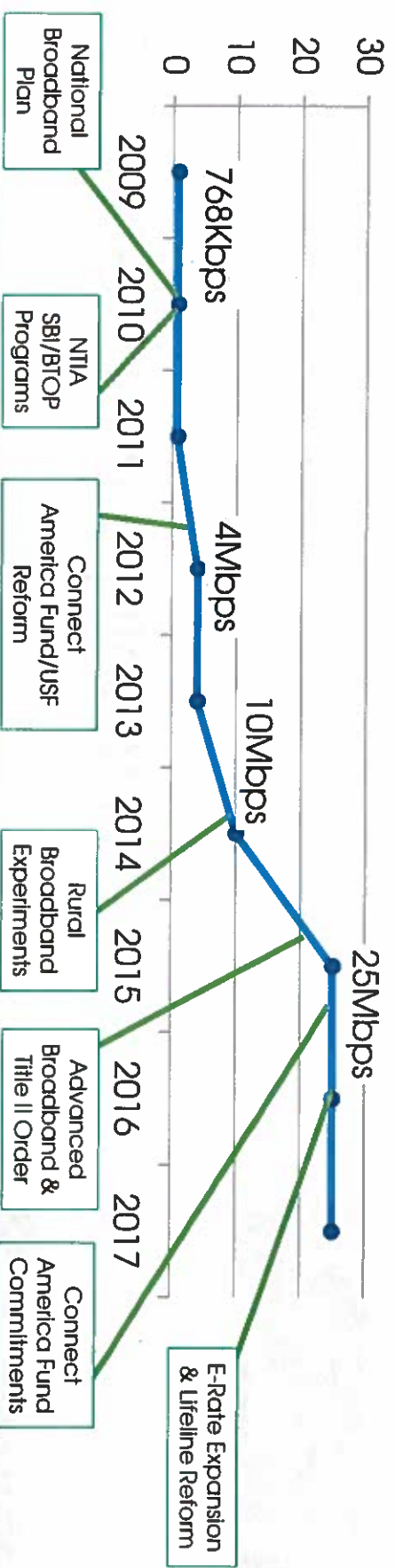
We knew we had a problem, but it sat unaddressed for a number of years. We didn't address it because we didn't know how to start, where to go for help and besides most of our peers (rural counties) had the same issue. This is where Connect Michigan came in - Oscoda County Community Development



Broadband Defined

- More commonly referred to as high-speed internet access, technically, any kind of connection other than dial-up
- Several platforms: Fixed, terrestrial connections: cable, DSL, fiber, and fixed wireless, as well as mobile wireless and satellite
- 10 Mbps/1 Mbps is used by the FCC for the Connect America Fund program and 25 Mbps/3 Mbps is used by the FCC to define "advanced broadband" service

Broadband Definition and Federal Broadband Milestone History



We have found Connect Michigan to be an independent, reliable source of information and technical assistance in the realm of broadband issues.

— Northern Lakes Economic Alliance



Topics to Cover

1. Context and background
2. Broadband defined
3. Infrastructure access
4. Broadband adoption
5. Community planning and technical assistance
6. Capacity building, engagement, and outreach
7. Work to be done